N° 2164 A.D. 1901

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Complete Specification Left, 30th Apr., 1901—Accepted, 15th June, 1901

PROVISIONAL SPECIFICATION.

Improvements in Syringes for Surgical and other purposes.

I, George Frederick Noel Taylor of 56 Ludgate Hill, London, E.C., L.R.C.P. & S.E., L.F.P. & S.G. & L.M. Edinburgh, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in syringes-used for surgical and other like purposes, and is especially applicable to those known as hypodermic syringes The object of this invention is to provide a syringe constructed in such a manner as to enable the same to be absolutely sterilized by simple means, such for instance as bringing the said syringe to boiling point in water, after the removal of the rubber ring on the piston rod which could be placed in an antiseptic solution, and also to prevent leakage between the barrel and the needle, moreover the cost of manufacture is reduced.

My improved syringe consists of a graduated cylinder or barrel made of glass in the usual manner (except that the needle end of the cylinder is made solid for the purpose to be hereinafter described), a piston rod, piston or plunger, with indiarubber packing ring, and a metallic tube or "needle".

This said metallic tube or "needle" is provided at the end which is fixed in the syringe with a bulb of solid metal at such a position round the needle that when sealed in the solid end of the cylinder of the syringe, the bulb shall occupy the middle of this solid portion of the glass cylinder or barrel aforesaid.

This needle is sealed into the said solid portion of the glass by any convenient and effective means while in a state of fusion.

As both the glass and the metal employed for all practical purposes contract and expand equally or thereabouts when brought to the boiling point there is no liability to leakage due to unequal expansion or contraction, nor any danger of the glass barrel cracking.

Dated this Thirty-first day of January, 1901.

REGINALD W. BARKER
Applicant's Agent, 56 Ludgate Hill, London, E.C.

COMPLETE SPECIFICATION.

Improvements in Syringes for Surgical and other purposes.

I, George Frederick Noel Taylor of 56 Ludgate Hill, London, E.C., L.R.C.P. & S.E., L.F.P. & S.G. & L.M. Edinburgh, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in syringes used for surgical and other like purposes, and is especially applicable to those known as hypodermic syringes. The object of this invention is to provide a syringe constructed in such a manner as to enable the same to be absolutely sterilized by simple means, such for instance as bringing the said syringe to boiling point in water, after the

[*Price 8d.*]

removal of the rubber ring on the piston rod which could be placed in an antiseptic solution, and also to prevent leakage between the barrel and the needle, moreover the cost of manufacture is reduced.

My improved syringe consists of a graduated cylinder or barrel made of glass in the usual manner (except that the needle end of the cylinder is made solid for the purpose to be hereinafter described), a piston rod, piston or plunger, with indiarubber packing ring, and a metallic tube or "needle".

This said metallic tube or "needle" (which I prefer to make of platiniridium or similar metallic alloy) is provided at the end which is fixed in the syringe with a bulb of solid metal at such a position round the needle that when sealed in the solid end of the cylinder of the syringe, the bulb shall occupy the middle of this solid portion of the glass cylinder or barrel aforesaid.

This needle is sealed into the said solid portion of the glass by any convenient and effective means while in a state of fusion.

As both the glass and the metal employed for all practical purposes contract and expand equally or thereabouts when brought to the boiling point there is no liability to leakage due to unequal expansion or contraction, nor any danger of the glass barrel cracking.

In order that this invention may be readily understood reference is made to the accompanying drawings in which Fig. 1 is a section of the cylinder or barrel, showing the solid end with the metallic tube or needle fixed in its place. Fig. 2 is a similar section, with the piston or plunger in its position in the barrel, and Fig. 3 is an enlarged section of the metallic needle, showing the solid bulb on same. In these several views the same letters denote the same parts, A being the cylinder or barrel, made of glass with the solid end B, the other end C being open and provided with a collar D. E is the plunger or piston of the syringe, the end F of which is reduced to receive an indiarubber ring, and the rear end G is provided with a collar or bulb made concave for receiving the thumb. H is the metallic tube or needle with a solid bulb at J, which bulb occupies a position in the middle of the solid end B at the end of the glass cylinder or barrel A. The piston rod or plunger E being slightly less in diameter than the bore of the cylinder or barrel A can easily be withdrawn, and the rubber ring removed with the least possible trouble, and rendered aseptic by placing in an antiseptic solution while the other portions of the syringe can be made aseptic by boiling. The substance to be injected can be sucked up through the needle or poured in by means of a dropper from the collar end.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

In syringes used for surgical purposes and the like the provision of a solid end to the barrel of the glass syringe, and a metallic tube or needle, with a solid bulb for sealing in said solid end of the barrel and whereby the said metallic tube or needle is fixed and sealed in the same, substantially as and for the purpose set forth and described and illustrated by the accompanying drawings.

Dated this 25th day of April, 1901.

REGINALD W. BARKER,
Applicant's Agent, 56 Ludgate Hill, London, E.C.

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TAYLOR'S Complete Specification.

(1 SHEET)

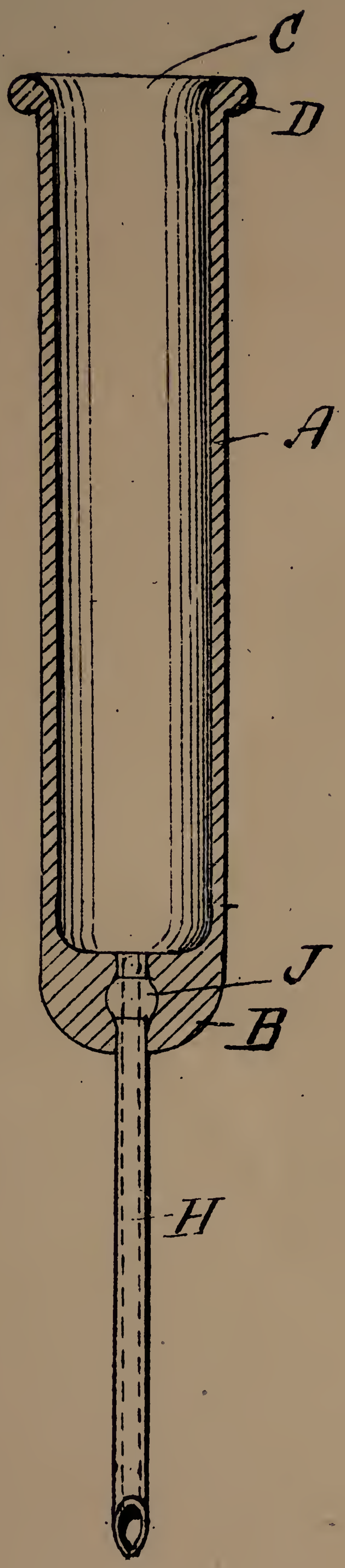

Fig. 1

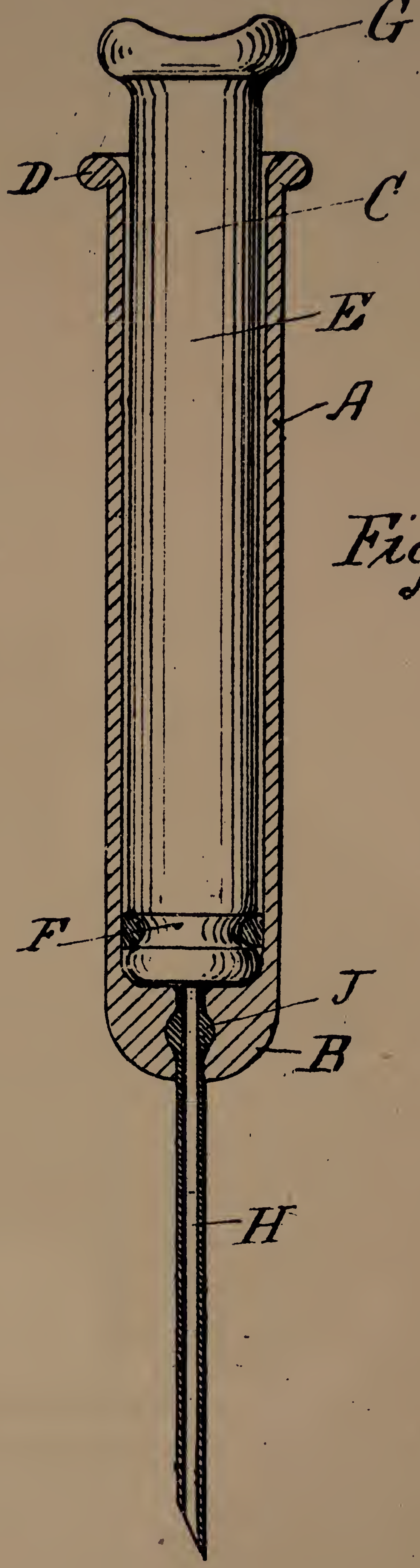

Fig. 2

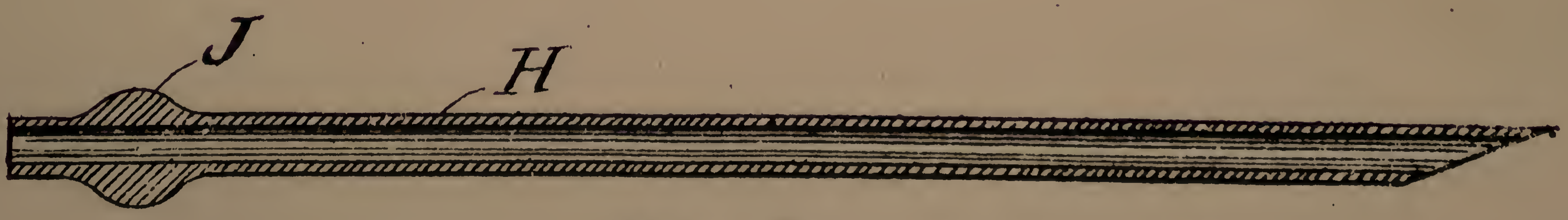

Fig 3

[This Drawing is a reproduction of the Original on a reduced scale.]

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